

PORTABLE GAS ANALYZER

DATA SHEET

ZFY

This unit is a simple and stable analyzer using a single-beam infrared-ray system. It is designed for measuring carbon dioxide gas (CO₂), carbon monoxide (CO) or methane (CH₄), and is used to measure atmospheric gases in agricultural vinyl greenhouse, carbon dioxide gas in rooms or carbon dioxide gas, carbon monoxide, ethane, etc., in thermal processing furnaces.

FEATURES

1. Single-beam NDIR system is used for simple structure, providing excellent stability without interference of other gases.
2. The adoption of a unique mass-flow type sensor assures high sensitivity and long service life.
3. One-touch zero/span calibration, self-diagnosis function and 2-range select function assure easy operation and maintenance.
4. Sampling devices such as pump, filter, flow checker, etc., are built-in to allow the user to make measurements simply by connecting a sampling tube.
5. Compact design offers easy carrying and handling.

SPECIFICATIONS

- 1) **Application :** Facilities gardening, measurement of gases in rooms, combustible exhaust gas, gases in thermal processing furnaces or ceramic industry furnaces, and various tests

- 2) **Measurement principle :**
NDIR (Non-dispersive Infrared-absorption method; single-beam system)

- 3) **Measuring components and measurement range :**

Measurement range \ Measuring components	CO ₂	CO	CH ₄
0 to 0.2/0.5%	○	×	×
0 to 0.5/1.0%	○	○	×
0 to 1.0/2.0%	○	○	○
0 to 2.0/5.0%	○	○	○
0 to 5.0/10.0%	○	○	○
0 to 10.0/20.0%	○	○	×
0 to 20.0/50.0%	○	○	×
0 to 50.0/100.0%	○	×	×

- 4) **Repeatability :** ±0.5%FS
- 5) **Drift :** ±2%FS /day for zero and span
- 6) **Linearity :** ±2%FS
- 7) **Response :** 90%, less than 15sec

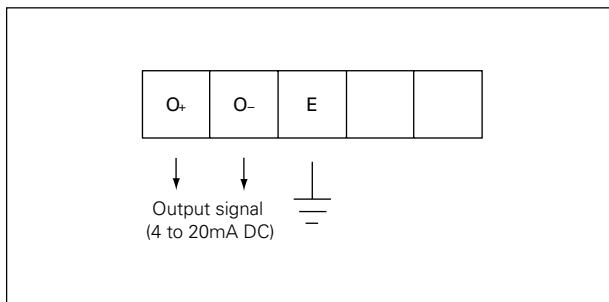


- 8) **Sample flow :** About 1R/min (pump, filter and flowmeter, built-in)
- 9) **Analog output :**
4 to 20mA DC (allowable load; less than 550Ω)
- 10) **Indicator :** 4th code digital display
- 11) **Calibration :** One-touch calibration using canned gas or compressed standard gas (φ6 tube connection attachment supplied)
- 12) **Warming time :**
About 30min
- 13) **Gas connecting parts material :**
SUS, polyethylene, polypropylene, CaF₂, tolon, chloroprene
- 14) **Power source :**
100V or 115V AC ±10%, 50/60Hz, about 40VA (power cord supplied)
- 15) **Self-diagnosis function :**
Calibration range over, analyzer error, etc.
- 16) **Sample gas condition :**
Dust; 0 to 10mg/Nm³(filter should be used at the front for continuous measurement)
Temperature; Less than 50°C at analyzer inlet
Pressure; -2.94 to +2.94kPa {-300 to +300mmH₂O}
- 17) **Installation condition :**
Temperature; 0°C to 40°C
Humidity; 90%RH or less
Installation place; indoor (Do not install in a place near combustible exhaust gas. Be sure to install on a flat stand.)
- 18) **Case :** Plastic, portable type (with ventilating holes)
- 19) **Dimensions :** (H)170 × (W)260 × (D)375mm
- 20) **Mass :** Approx. 5kg

Code symbols

1	2	3	4	5	6	7	8	9	code	Description
Z	F	Y						1		
Measuring components (4th code)										
B										CO
D										CO ₂
E										CH ₄
Measurement range (5th code)										
G										0~0.2 / 0.5% (Not available for CO and CH ₄)
H										0~0.5 / 1.0% (Not available for CH ₄)
J										0~1.0 / 2.0%
K										0~2.0 / 5.0%
L										0~5.0 / 10.0%
M										0~10.0 / 20.0% (Not available for CH ₄)
N										0~20.0 / 50.0% (Not available for CH ₄)
P										0~50.0 / 100.0% (Not available for CO and CH ₄)
Output signal (6th code)										
1										4-20mA DC
Power source (7th code)										
1										100V AC 50/60Hz
2										115V AC 50/60Hz
Application (9th code)										
A										General use (combustible exhaust gas, greenhouse, atmospheric gas)
B										For heat processing furnace gas, (about 30% H ₂ contained)
C										For heat processing furnace gas, (about 65% H ₂ contained)
D										For ceramic industry

Connection diagram



Scope of delivery

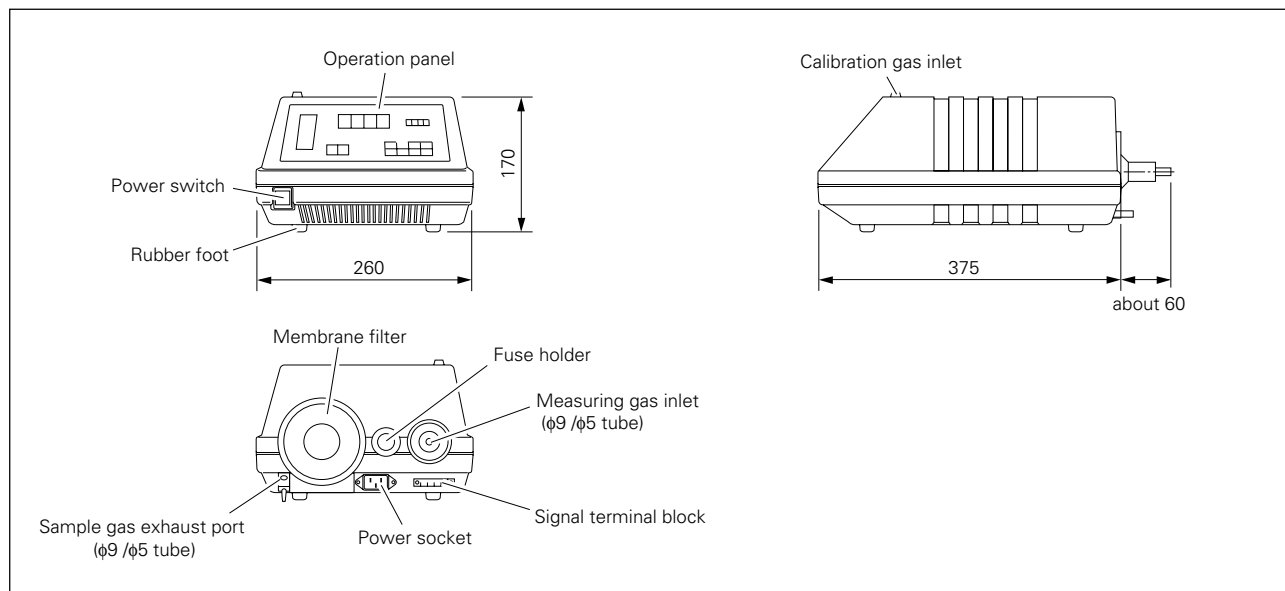
Main body	1
Power cord	1
Power fuse (tube type 1A, φ6.4 × 30)	1
Filter paper	25
Calibration gas pipe joint	1
Main body vinyl cover	1
φ9/φ5 Toalon tube, 5cm (for connection of φ6 tube)	1
Hose band (for φ10)	2

Optional items

Zero/span calibration standard gas

(Type: ZBM 1 ℓ canned gas available in the unit of 12 cans)

Outline (Unit: mm):



⚠ Caution on Safety

*Before using this product, be sure to read its instruction manual in advance.

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